

**NEW PROGRAM APPROVAL:
MS AND DSC
CLINICAL SCIENCES
UNIVERSITY OF KENTUCKY**

ACTION
Agenda Item H-3
March 19, 2001

Recommendation

The staff recommends that the council approve the master of science and doctor of science in clinical sciences programs proposed by the University of Kentucky.

Background

The multidisciplinary clinical sciences master's program prepares graduates for health care administration, clinical practice, and basic and applied research. It has two areas of concentration: reproductive laboratory science, and transplantation and hematology science. Reproductive laboratory science is an emerging discipline that focuses on human reproduction and infertility. Transplantation and hematology science tests innovative approaches to organ and marrow transplant, and tissue grafting, and studies the use of blood in diagnosis and treatment of human diseases.

The program was originally designed jointly with the University of Louisville School of Allied Health Sciences. The University of Louisville closed its School of Allied Health Sciences in November 2000 and withdrew from the proposed program. The University of Kentucky has revised the program's scope and offerings accordingly.

Traditional and nontraditional students with a bachelor's degree in clinical laboratory science, cytotechnology, histotechnology, histocompatibility technology, and biology will be recruited primarily from underserved areas. Emphasis will be placed on graduates' returning to their home communities to help attract laboratories and clinics to improve healthcare.

The program will incorporate distance education to use resources as efficiently as possible and make graduate study available to students throughout the state. Core curriculum and specialty courses will be available using the Kentucky Tele-Linking Network and the Kentucky Virtual University. Courses will be scheduled to accommodate graduate students who hold full-time clinical or educational positions.

The University of Kentucky will continue to work with the Area Health Education Centers to promote the program, recruit students, and establish distance learning sites.

Using the Kentucky Postsecondary Program Proposal System, the University of Kentucky posted the proposed programs to the council's Web site. They were reviewed without objection by other Kentucky public and independent universities and the Kentucky Community and Technical College System.

Staff Preparation by Jennifer Marsh

University of Kentucky

Clinical Sciences Master's and Doctoral Program

Executive Summary

The University of Kentucky Clinical Laboratory Science Program has planned and developed a unique graduate program which addresses the rapidly changing health care environment and selected evolving clinical science disciplines. The Master's degree core curriculum provides a foundation in advanced clinical sciences and specialized training in one of two areas of concentration: Reproductive Laboratory Science, and Transplantation Science/Hematology. The Doctor of Science degree provides further study in transplantation, hematology, and advanced research training.

Mission, Influences & Organization

The University of Kentucky is responsive to the needs of the health care communities, both by educating practitioners and by preparing scholars who can contribute significantly to basic and applied clinical research. This program will support the mission and goals of the University of Kentucky to achieve success in fostering excellence in graduate, post-graduate, and professional education. It will allow the University of Kentucky to take a leadership role in clinical sciences education.

The program will include the following disciplines: reproductive laboratory sciences (the first of its kind in the country) and hematology/transplantation science. Both are expected to appeal to a number of individuals, as evidenced by statewide and local survey results. Offering Master's and Doctoral programs in these disciplines positions the University of Kentucky as a national leader in graduate clinical sciences and allied health education.

The primary responsibility for the administration, instruction and research activities of the graduate program will reside with the faculties of the University of Kentucky Clinical Laboratory Sciences program. The Clinical Sciences Graduate Program will be housed in the College of Allied Health Professions and will involve primarily faculty from the Clinical Laboratory Science Division in the Department of Clinical Sciences. The academic unit is a part of the Chandler Medical Center, an academic health science center, and the graduate school.

Program Description

The role of research and scholarship within professional allied health schools has increased and gained significant importance over the last several years. Consequently, allied health disciplines must enhance and increase their academic scholarship to fulfill the responsibility of contributing to the knowledge base of these disciplines.

The proposed graduate program is distinctive in that it is multi-disciplinary in two ways. First, this initiative will offer Master's and Doctoral programs for the advanced education and career enhancement of clinical scientists (Clinical Laboratory Scientists, Cytotechnologists, Histotechnologists, Histocompatibility Technologists, Cytogeneticists, and other health professionals) as well as individuals who possess a bachelor's degree in biology. It accommodates individuals with a variety of clinical and biological sciences degrees. Secondly, students will be able to supplement the core curriculum with one of two areas of concentration leading to a variety of career opportunities. More importantly, the areas of

concentration are non-traditional, evolving disciplines: transplantation science/hematology and reproductive laboratory science.

A “distance education” model will maximize resources and enhance availability of graduate study to students throughout the region. Core curriculum courses and selected courses in the concentrations will be available using the interactive video system of the Kentucky Tele-Linking Network. In addition, the use of the Kentucky Virtual University (KYVU) will be explored to deliver portions of the proposed program. Courses will be scheduled to accommodate the schedules of graduate students who hold full-time clinical or educational positions.

Supportive Data

Local and national survey results reveal the demand by prospective students for the Clinical Sciences Graduate Program and the employment opportunities its graduates will enjoy. Graduates who have earned a Master’s degree will be in high demand in administrative, clinical practice and research arenas. Doctoral recipients with their expertise in transplantation science and hematology will be prepared to accept laboratory directorships and equipped to launch independent research programs. The Doctoral program specifically addresses the approaching shortage of Doctoral-level transplantation scientists projected by the American Society for Histocompatibility and Immunogenetics.

Resources

The graduate program faculty will focus on curriculum development, admissions, instruction, program evaluation, and supervision of student research based on interest, expertise, and availability. The Clinical Sciences Graduate Program represents a unified approach and efficient utilization of resources in addressing diverse needs within clinical sciences practice, higher education, academia and research. Instructional and research activities will be enriched by the contributions of several doctorally prepared clinical practitioners, researchers and faculty connected with the Lexington academic health centers. Their letters of support delineate the need and their support for the Clinical Sciences Graduate Program and their commitment to participate as lecturers, graduate student mentors, and thesis and dissertation committee members.

Two new faculty positions will be committed to the Clinical Sciences Graduate Program. Established scholars and researchers will be recruited to fill these positions.

A new state-of-the-art allied health facility, scheduled for completion within 14 months will house this program. This facility is designed with classroom space equipped with all necessary hardware to deliver distance learning technology, computer interface and television linkages to affiliated sites. Twenty-five bench research laboratories are planned for the new building, which should easily accommodate current faculty research as well as to allow for future program expansion.

External funding in the form of an “Allied Health Program Project Grant” (\$360,000 over three years) has been secured from the Health Resources and Services Administration (HRSA), Washington, D.C. It will be used to assist in the delivery of this program. In addition, the University of Kentucky has requested financial resources in its recurring budget for fiscal year 2001-2002 to initiate the Clinical Sciences graduate program. Internal reallocation and tuition revenue will provide the resources needed to sustain the program.

The proposed master's of science and doctorate in science degree program in Clinical Sciences has been designed to accommodate students who have completed a baccalaureate degree in clinical laboratory science, cytotechnology, histotechnology and histocompatibility technology, and qualified students of biology. Students will enter the program through the traditional Graduate School application process. Acceptance into the Clinical Sciences graduate program will be competitive with admission preference given to Kentucky residents, especially those that are minority students and students with educationally disadvantaged rural Kentucky backgrounds.

The long-term goal is to increase the number of qualified clinical scientists and researchers with advanced training in two areas of specialization: hematology/transplantation science and reproductive laboratory science. These graduates will then be prepared to fill advanced technical and leadership positions that will become available as new advances in scientific knowledge, such as the human genome project, influence the practice of clinical medicine in the country and the world. The master's and doctorate curricula of the University of Kentucky Clinical Sciences Graduate Program will provide a pool of well-educated graduates for these positions.

Important Note

This program was originally designed as a joint academic program to be delivered with the University of Louisville School of Allied Health Sciences. However, during the past several months, the University of Louisville has reported changes in its academic structure, particularly the closing of the School of Allied Health Sciences. These reports were of particular interest and concern to the College of Allied Health Professions at UK given our plans for the joint program. We received formal notification of UofL's intention to withdraw from the program in late November 2000. We have revised the program accordingly. It should be noted that the proposal remains relatively unchanged in terms of scope and offerings. One track, a laboratory management track, has been deleted completely from the proposal because it was to be offered at UofL only. UK has an existing program offered through the College of Business and Economics in health management. It was not necessary to offer a similar program within the College of Allied Health Professions.